



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0940; Directorate Identifier 2012-NE-26-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Turbomeca S.A. Turboshift Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) that applies to all Turbomeca S.A. Arriel 2D turboshift engines. The existing AD currently requires replacing the hydromechanical metering unit (HMU) at a reduced life. Since we issued that AD, further cases of deterioration of HMU rotating components have been reported before the HMU reached the replacement interval in that AD. The proposed AD would maintain the existing AD requirements and would also require inspections of the HMU. We are proposing this AD to prevent an uncommanded in-flight shutdown of the engine, and possible loss of the helicopter.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: [frederick.zink@faa.gov](mailto:frederick.zink@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0940; Directorate Identifier 2012-NE-26-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

On January 11, 2013, we issued AD 2013-01-07, Amendment 39-17321 (78 FR 6725, January 31, 2013), for all Turbomeca S.A. Arriel 2D turboshaft engines. That AD requires replacing the HMU at a reduced life. That AD resulted from a low fuel pressure event caused by deterioration and a loss of the low-pressure drive function within the HMU. We issued that AD to prevent an uncommanded in-flight shutdown of the engine, and possible loss of the helicopter.

### **Actions Since Existing AD Was Issued**

Since we issued AD 2013-01-07 (78 FR 6725, January 31, 2013), further cases of deterioration of HMU rotating components have been reported before the HMU reached the replacement interval in that AD. Also since we issued AD 2013-01-07, the European Aviation Safety Agency (EASA) issued AD 2013-0079, dated March 22, 2013. EASA's AD imposes the same reduced life as AD 2013-01-07, and, also requires inspections of the HMU.

### **Relevant Service Information**

We reviewed Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A292 73 2847, Version B, dated March 6, 2013. The Alert MSB describes procedures for inspecting and/or replacing the HMU.

**FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**Proposed AD Requirements**

This proposed AD would maintain the existing AD requirements of AD 2013-01-07 (78 FR 6725, January 31, 2013), and would also require inspections of the HMU.

**Costs of Compliance**

We estimate that this proposed AD would affect 56 Arriel 2D turboshaft engines installed on helicopters of U.S. registry. We also estimate that it would take about two hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Required parts would cost about \$14,400 per engine. Based on these figures, we estimate the total cost of the proposed AD to U.S. operators is \$815,920.

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2013-01-07, Amendment 39-17321 (78 FR 6725, January 31, 2013), and adding the following new AD:

**Turbomeca S.A:** Docket No. FAA-2012-0940; Directorate Identifier 2012-NE-26-AD.

**(a) Comments Due Date**

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD supersedes AD 2013-01-07, Amendment 39-17321 (78 FR 6725, January 31, 2013).

**(c) Applicability**

This AD applies to all Turbomeca S.A. Arriel 2D turboshaft engines.

**(d) Unsafe Condition**

This AD was prompted by further cases of deterioration of hydromechanical metering unit (HMU) rotating components that have been reported before the HMU reached the replacement interval in AD 2013-01-07 (78 FR 6725, January 31, 2013). We are issuing this AD to prevent an uncommanded in-flight shutdown of the engine, and possible loss of the helicopter.

**(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

(1) Replace inter-pump complete sleeve, and inspect the female splines and HMU high-pressure (HP) pump and low-pressure (LP) pump male splines for corrosion, scaling, cracks and wear, at the following:

(i) Before exceeding 400 HMU operating hours since new if the HMU has 375 or fewer operating hours on the effective date of this AD; or

(ii) Within 25 HMU operating hours if the HMU has more than 375 operating hours on the effective date of this AD; and

(iii) Thereafter, at intervals not to exceed 400 HMU operating hours.

(iv) Use Section 2.B.(1) of the Instructions to be Incorporated of Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A292 73 2847, Version B, dated March 6, 2013, to accomplish the replacement and visual inspection required by paragraph (e)(1) of this AD.

(v) If the HMU does not pass the initial or repetitive visual inspections required by paragraph (e)(1) of this AD, then before next flight, replace the affected HMU with an HMU eligible for installation.

(2) Replace the rotating components of the HP and LP pumps, including the complete sleeve, or replace the HMU with an HMU eligible for installation at the following:

(i) Before exceeding 800 HMU operating hours since new; or

(ii) Within 800 HMU operating hours since last replacement of LP and HP fuel pumps rotating components; whichever occurs later.

(iii) Thereafter, replace the LP and HP fuel pump rotating components within every 800 HMU operating hours.

(iv) Use Section 2.B.(1) of the Instructions to be Incorporated of Turbomeca S.A. Alert MSB No. A292 73 2847, Version B, dated March 6, 2013, to accomplish the replacements required by paragraph (e)(2) of this AD.

**(f) Credit for Previous Actions**

If before the effective date of this AD, you complied with Turbomeca S.A. Alert MSB No. A292 73 2847, Version A, dated May 29, 2012, you met the initial inspection requirements in paragraph (e) of this AD. However, you must still comply with the repetitive inspection requirements of this AD.

**(g) Installation prohibition**

After the effective date of this AD, do not install any HMU onto any engine, or install any engine onto any helicopter, unless the HMU is in compliance with this AD.

**(h) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(i) Related Information**

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) European Aviation Safety Agency AD 2013-0079, dated March 22, 2013, Turbomeca S.A. Alert MSB No. A292 73 2847, Version B, dated March 6, 2013, and Turbomeca Maintenance Manual Task 73-23-00-802-A01, pertain to the subject of this AD.

(3) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on June 3, 2013.

Colleen M. D'Alessandro,  
Assistant Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

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